

Amendments to the Claims

1. (Currently Amended) An injection mold comprising:
a fixed mold having a passage for introducing injecting a fluid therethrough and an internal space;
a movable mold detachably attached to the fixed mold and forming a molding space together with the internal space of the fixed mold; and
a same flow accelerating material means provided on all the inner walls of both the fixed mold and the movable mold that form the molding space for and accelerating flow of the fluid injected into the injection mold.
2. (Currently Amended) The mold of claim 1, wherein the same flow accelerating material means is a solid coating material for increasing insulation of the fluid and reducing a flow resistance of the fluid.
3. (Original) The mold of claim 2, wherein the solid coating material is a polymer coating material.
4. (Original) The mold of claim 3, wherein the polymer used for the polymer coating material is PEEK (Poly Ether Ether Ketone).
5. (Original) The mold of claim 3, wherein the polymer coating material is one of PTFE (Polytetrafluoroethylene), PE (Polyethylene) and methacrylates.
6. (Original) The mold of claim 2, wherein the solid coating material

is a ceramic coating material.

7. (Original) The mold of claim 6, wherein the ceramic coating material is one of aluminum oxide and zirconium oxide.

8. (Currently Amended) The mold of claim 2,

An injection mold comprising:

a fixed mold having a passage for introducing a fluid therethrough and an internal space;

a movable mold detachably attached to the fixed mold and forming a molding space together with the internal space of the fixed mold; and

a flow accelerating means provided on an inner wall of the molding space for and accelerating flow of the fluid;

wherein the flow accelerating means is a solid coating material for increasing insulation of the fluid and reducing a flow resistance of the fluid,

wherein the solid coating material is a solid lubricant.

9. (Original) The mold of claim 8, wherein the solid lubricant is one of graphite, molybdenum and disulfide.

10. (Currently Amended) The mold of claim 2,

An injection mold comprising:

a fixed mold having a passage for introducing a fluid therethrough and an internal space;

a movable mold detachably attached to the fixed mold and forming a molding space together with the internal space of the fixed mold; and

a flow accelerating means provided on an inner wall of the molding space for and accelerating flow of the fluid;

wherein the flow accelerating means is a solid coating metal material for increasing insulation of the fluid and reducing a flow resistance of the fluid;
and

wherein the solid coating material is a solid metal.

11. (Currently Amended) The mold of claim 10, wherein the solid coating metal material is one of lead, indium, cadmium, tin and silver.

12. (Currently Amended) A molding system comprising:

a cylinder having an inlet and an outlet;

a screw installed inside the cylinder and making a mold material and a mixture including a plastic introduced into the inlet of the cylinder flow toward the outlet;

a heater for heating the mold material and mixture introduced in the cylinder;

a fixed mold having a passage for introducing injecting a fluid therethrough and an internal space;

a movable mold detachably attached to the fixed mold and forming a molding space together with the internal space of the fixed mold; and

a same flow accelerating material means provided on an the inner walls of both the fixed mold and the movable mold that form the molding space for and accelerating flow of the fluid injected into the injection mold.

13. (Original) The system of claim 12, wherein a foaming agent

supplier is provided at the side of the inlet of the cylinder to supply a foaming agent into the cylinder.

14. (Original) The system of claim 12, wherein a gas supplier is provided at the side of the inlet of the cylinder to supply a gas into the cylinder.

15. (Original) The system of claim 12, wherein the flow accelerating means is a solid coating material for increasing insulation of the fluid and reducing a flow resistance of the fluid.

16. (Currently Amended) An injection molding method comprising:
coating ~~a the same~~ coating material for accelerating flow of a fluid on ~~an~~
~~the inner walls of both a fixed mold and a movable mold that form~~ a molding space formed in an injection mold;
mixing a mold material and a foaming agent (or a gas) and heating the mixture to above a pre-set temperature; and
injecting the molten mixture into the molding space of the injection mold.

17. (Original) The method of claim 16, wherein the solid coating material is a polymer coating material.

18. (Original) The method of claim 17, wherein the polymer coating material is one of PEEK (Poly Ether Ether Ketone), PTFE (Polytetrafluoroethylene), PE (Polyethylene) and methacrylates.

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23. (New) The injection molding system of claim 12, further comprising an inner wall passage provided with the same flow accelerating material means.